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## NOTES ON SOME OF THE CLINICAL FEATURES OF TUMORS, THEIR ANATOMICAL CHARACTERS, MORPHOLOGICAL ELE- MENTS AND THEIR THERAPY, BY TENTATIVE, CONSTITU- TIONAL OR RADICAL MEASURES.

BY THOMAS H. MANLEY, M. D., NEW YORK.

### CLASSIFICATION—THE DIVISION AND SUBDIVISIONS—OF NEO- PLASMS; THE MORPHOLOG- ICAL, HISTOLOGICAL AND EM- BRYOLOGICAL CHANGES WHICH PRECEDE THEM.

Dr. Louis Heitzman, my late deceased master, the well-known Vienna anatomist and pathologist, when asked once by me the cause of hetero-plastic growths, in his usual abrupt manner answered that "he did not know and that no-body else knew."

Coming from one of his profound erudition, a noted teacher, who had consecrated his entire life to the study of morbid anatomy and morphological transmutations, it astonished me; for

from dogmatic writings I had been led to believe that our knowledge of the primary causes of tumor growth and development were based on something like definite principles; it later, however, became clearly evident to me that this was a mistake, except with those adventitious formations the evolution of which is coincident with or consecutive to various cachexial or vitiated conditions of the general constitution.

But Virchow (Arch. fur. Path. Anat. 1847) promulgated a very far-reaching doctrine, which made its influence felt, in our conception of all new growths or hyper-plastic processes. The essence of this was that all cellular proliferation was from

pre-existing cells of the same species. It went further, and for the first time it was affirmed that each separate cell possessed an individuality of its own, for its own regeneration and repair. Had this theory been firmly established on so irrefrangible a basis as to stand the strain of an impartial and crucial investigation at the hands of acknowledged authorities, it would have established beyond question the fact that we were in possession now of positive knowledge of neoplastic evolution; but it has not, although it must be admitted that the principle it enunciated, in a modified form, has been conceded by our younger pathologists.

However, although Virchow's doctrine of cellular pathology may not be accepted in toto, it provides a more rational histological basis for the explanation of corpuscular changes in the structures than any other preceding it.

The reader is referred to Virchow's work on pathology for a full knowledge of the data on which the eminent German constructed his speculations.

Lebert and Cohnheim later launched their theory of the embryological or teratological origin of new growths; their assumption being that in all heterologous neoplasms the primitive nidus is a displaced element of the formative variety, peculiar to the mesoblast in fetal development.

This doctrine is now quite generally recognized, with few unimportant reservations, by many of our most noted pathologists. For primary growths it may be accepted as a rational explanation; but in many originally simple elements later, assuming a higher organization, we must invoke some other, as yet, occult factor in causation.

Greene declares that every morbid histological element has its physiological prototype, and that in malignant diseases of the cancerous variety we find but an overgrowth of epithelial elements, and in sarcoma nothing other than a reversion process to the embryological type of non-differentiated cells.

This is probably correct, if applied to early stages, to simple homologous formations, and to the incipient stages of epithelioma, but in scirrhous, in medullary, melanotic and other types of cancer, in myosarcoma, in psammoma and several other instances, we will find elements which have no morphological analogues in the healthy structure.

This may be explained by saying that the new or foreign elements are the outcome of degenerative changes and chemical metamorphoses, the pearls, the pegs and crescents of cancer being the result of fatty degeneration of the epithelia, and the cholesteroline in teratomata being dependent on like causes; but this is rather inferred than proven. This portion of the subject of tumors is beset with the greatest difficulties for the reason that we are only enabled to study their molecular structure in the dead state, and then often only after it has been altered by reagents or chemicals in mounting.

#### TUMORS OF AN INFECTIOUS ORIGIN CONTAMINATED FROM WITHOUT.

While the essential cause of cancerous and sarcomatous growths, now, at the close of this great century of progress in scientific research, remains as great a mystery as ever, it should not be lost sight of that very great advances have been made in enlarging our acquaintance with a group of formations the true character of which must have remained obscure were it not for the microscope and culture experiments. Among the more common of these are hydatid tumors, the actinomycotic, tuberculous, glanders, besides anthrax, etc.

The germ elements, in operation in these, act through the circulation, or locally on special tissues, which at various stages of life they have a special affinity for.

These appear with fairly regular clinical phenomena, and may be generally readily detected by an experienced observer, although when their evolution is a typical or complicated one he may be misled into error, and recommend a line of treatment needlessly harsh or useless.

One of the most interesting and the latest understood of the above parasitic tumors is actinomycosis, recognized, according to Israel, by Langenbeck in 1845. Davaine studied it at length in a submaxillary tumor. Sabastian Rivolti was the first who proved its infectious character, in 1868, by inoculations on the rabbit. Heller and Perroucinto confirmed these experiments. Bollinger

and Harz gave the malady the name it now bears.

This interesting malady has attracted the notice of our most noted pathologists, and important contributions have appeared on the subject, notably from the pens of Cornil and Baber, Mathieu, Roussel, Laug-hans, Baranski, Florman, Lemiere, Johnne, Firkelt, Wolf, Hertigg, Bostrom and Poncet, of Lyon.



## THE THERAPEUTIC ACTION OF ORPHOL (BETANAPHTOL-BISMUTH).

BY DR. GOLINER, OF ERFURT.

(Translated from the Allg. Med. Central-Zeitung, 1896, No. 96.)

Intestinal ulcerations, occasioned by the breaking down of cheesy degenerated follicles are of not infrequent occurrence during the progress of pulmonary tuberculosis, and, as is well known, are found most often in the ileum. Thence the disease spreads to the colon and even to the vermiform appendix. The number of the follicles affected varies in different cases; sometimes the gut is fairly sown with them over a large extent of its surface, and sometimes the malady is limited to a small region. When the cheesy central mass softens and is extruded a follicular ulcer is formed, whose tubercular nature is shown by the presence of granulating connective tissue containing miliary tubercles in its neighborhood. The central necrosis progresses and the ulcer extends, while connective tissue, new growth and tubercle formation advances at the margins, and thus the follicular lesions soon develop into tubercular ulcers. Especially noticeable among the symptoms that they cause is the obstinate and violent diarrhoea, more especially when the ulcers are situated in the rectum or lower colon. Irritation of the intestine of any kind almost always causes increased frequency of defecation.

The thinness of these stools is accounted for, according to Nothnagel (Zur Klinik der Darmkrankheiten, 1881), partly by the pathological secretion from the ulcerated surfaces and partly by the lessened power of resorption of the diseased intestinal wall, in consequence of which the

feces are less solid than usual. When in the course of a consumption there appears an obstinate diarrhoea, perhaps mixed with blood and accompanied by colicky pains, it is extremely probable that intestinal ulceration is present. If peritonitis symptoms appear, then the ulcerations are approaching the serous membranes, or they have already perforated the wall of the gut.

Our attempts to influence the diarrhoea of consumptives by intestinal antiseptics have lately been given a rational basis by Chaumier, of Tours, who has called renewed attention to the importance of these therapeutic measures. Daily experience teaches us that astringents, like opium and tannin, have no healing influence on tubercular intestinal ulcerations. What is required is a reliable intestinal antiseptic that shall have at the same time astringent properties; thus lessening the evil effects of the micro-organisms and their products, and making the mucous membrane a bad culture ground for them. The lessening of the secretion also reduces to a minimum the nutrient materials obtainable by the microbes. Orphol or Betanaphtol-Bismuth is such a drug. It is a light-brown powder, prepared by the chemical factory of Von Heyden, at Radebeul, and, though composed of oxide of bismuth and naphtol, has neither the repulsive smell nor the burning taste of the latter drug. It has an agreeable, faintly aromatic taste and smell and contains 20 per cent. of betanaphtol and 80 per cent. of bismuth oxide. It thus combines an active antiseptic with a powerful



astringent agent. And since in most cases of chronic intestinal catarrh abnormal fermentation and decomposition plays a great part, the disinfection of the alimentary canal is an important therapeutic indication. The flatus and distension of the abdomen, the colicky pains, the abnormal abdominal sensations, all these symptoms are due to the activity of the micro-organisms in the intestine. I had occasion sometime ago to try orphol in a series of cases of lung disease that suffered from chronic intestinal catarrh. The result was an entirely good one. The stools became formed and regular and the troublesome symptoms above mentioned disappeared. I select the following case from the series:

A phthisical patient, 52 years old, had complained for some time of flatus, abdominal pains, and persistent diarrhoea. The number of thin stools varied from four to ten daily, with occasional attacks of colic. Although the patient had remained in bed for weeks, and had taken opiates, the troublesome diarrhoeas persisted. He was emaciated and anemic, and the meteorism was marked though there was no especial sensitiveness to pressure. The stools were almost watery, dirty-brown in color, foul of odor, and were plentifully mixed with mucous, with occasional streaks of blood. I was evidently dealing with chronic enteritis and ulceration of the intestinal mucosa. I put him on a bland diet and gave him 1.0 gm. (15 grains) of orphol

after eating, and this was repeated every two hours; he took 5 gm. (75 grains) daily. The result was a favorable one; the borborigmi eructations and pain were relieved and three days later constipation set in. The appetite, formerly very bad, improved, and the patient began to gain in weight. Later his bowels moved once a day and the stools were of the consistency of thick gruel.

Orphol influences the mucous membrane of the digestive tract in two ways. In the first place it is a disinfectant, hindering the development of the bacteria. It is also an astringent to the mucosa, in virtue of the bismuth that it contains. It is worthy of notice, also, that orphol does not, like opium and tannin, in any way interfere with the stomach, so that even patients suffering with dyspepsia bear it very well. To Chaumier is due our first knowledge of its antiseptic and astringent properties (Comp. E. Chaumier, de l'emploi de l'Orphol dans l'antisepsie intestinale, Tours, 1896); and he explained the theory of its pharmacodynamic action. He showed that Betanaphtol-Bismuth was decomposed in the intestinal canal into naphtol and bismuth, the first being antiseptic and the last astringent. A small portion of the naphtol is excreted in the urine; the rest passes out with the feces.

The new intestinal antiseptic is worthy of the attention of the practitioner.



## TWO YEARS' CLINICAL EXPERIENCE WITH THE GOLD SOLUTIONS.

BY EUSTATHIUS CHANCELLOR,

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These products being the most powerful alternatives at command, and so little understood from a physiological standpoint, it may be of interest to classify in a brief and concise manner some clinical experiences covering two years of experimentation. I beg leave to remark that I appreciate incredulity. I was incredulous myself and no doubt because of the great difficulty in reaching just such cases as are most benefited by arsenauro and mercauro.

Materia medica and therapeutics are well worthy the constant attention of medical practitioners, but unfortunately do not receive the notice they are justly entitled to. Time, however, will demonstrate that their place in medicine deserves far more prominence than that now given them. Two years ago we knew very little of the physiological effects of arsenauro and mercauro, but today we are in a position to emphatically say that they are the most powerful therapeutic agents at command, not only for their pronounced power to increase the percentage of hemoglobin in the blood, but also the number of red blood corpuscles. The surgeon says he uses no medicine, but how quickly he changes his mind when he gets a case of that dreaded disease, lymphadenoma, or Billroth's disease, when he finds his knife absolutely useless, and for his patient's sake must resort to treatment by arsenic. Not knowing what preparation to choose, naturally he turns to

one known as well to the laity as to himself, that of Fowler's solution, which contains an amount of spir. lavender comp., which produces excruciating pain when injected into the tissues and frequently stomache troubles (when given by the month), to such extent that it has to be abandoned temporarily at least.

If he had looked into and considered the probable effect of arsenauro, 12 times weaker in arsenic than Fowler's solution, containing no free (and therefore no irritating) arsenious acid, yet producing a physiological effect sooner than Fowler's solution (arsenauro can be used hypodermically as well as by the mouth) how much better and sooner would his patient be cured.

Its effect upon the tissues is far better, as it contains with it bromide of gold.

I herewith enumerate some of the special indications for arsenauro. It must be remembered that the power of arsenauro in its relation to physiological action and therapy, is no different, or very little, when given either by the stomach or injected under the skin. A quick effect would naturally be achieved by the hypodermic medication. This would apply to tumors of the cervical region (be they tubercular or other infiltration of the glands). Such neuroses as chorea, epilepsy, neuralgia have been marvelously cured by the use of arsenauro. Of course when given hypodermically the object sought is not simply to escape gastric irrita-

tion, for in many hundred cases not a stomacal disturbance has been reported. It is intended hypodermically to produce some local change in the nerves of the part which was the seat of disorder, as well as to bring about some more general change in the system. As to the dosage in any case requiring arsenauro or mercauro, the amount to be given at a time depends upon the physiological tolerance in each individual case. Some persons require only six (6) drops three times daily by the mouth for three months, others taking thirty drops three times a day for the same period of time, before permanent results are produced.

I wish to emphasize the fact that among the cases of disease requiring these solutions may be mentioned nervous affections, disorders of nutrition, glandular enlargements and tumors having the aspect of cancer or some form of malignant growth. In certain stomacal troubles, such as chronic catarrh, atrophy of the stomach glands, chronic ulcers and ulcers of the duodenum and other parts of the intestines, arsenauro greatly benefits and frequently cures. If the stomach proves irritable (and this is rare) and irritability increases with the administration of the products, the subcutaneous injection becomes a precious resource, those places about the body being selected where the connective tissue is most abundant and loose. From five to seven drops can be injected three or four times daily for a week, and then administered by the mouth for tolerance is soon established by the hypodermic use.

The neurotic affections benefited are asthma and the spasmodic element in the emphysema, the result in many cases being reached only by persistent administration. Our French colleagues have not been behind in experimentation with arsenauro in the treatment of bronchitis, emphysema and phthisis, both by stomacal and subcutaneous injection. In ordinary anemia, especially chlorosis, arsenauro has demonstrated a remarkable curative power and especially in that form known as pernicious anemia, which being a symp-

tom of degenerative changes, occurs in some important part or organ, more especially one or more concerned with the blood-making process.

The liver, spleen and suprarenal bodies and lymphatics coming more immediately in relation with the semi-lunar ganglion and the solar plexus are the organs more immediately concerned. Not only pernicious anemia, but morbid states closely allied have been cured in the hands of Stucky, of Louisville; Lydston, of Chicago; Dumesnil, of St. Louis; Wight, of Brooklyn; Soniat, of New Orleans, and Wile, of Connecticut. Cases of this kind associated with such grave conditions as glandular swellings and sarcomata have been treated successfully with these products. The extreme anemia of leucocythemia and splenic leukemia are other indications for their administration. Enlarged glands from external causes, as the increase in size due to malarial toxemia, the enlarged spleen and liver are quickly cured by arsenauro. It has exceptional powers in the treatment of diseases of the skin.

Two bodies cannot occupy the same space at the same time. One must displace the other of necessity, and hence when an impression from arsenauro or mercauro begins to develop, the morbid action must and does yield in a corresponding degree. This is the principle which underlies this treatment in diseases of the skin. The dry, scaly eruptions and chronic forms of eczema, together with the specific lesions of the skin, are the forms in which these solutions are particularly indicated. In acne it is well to alternate the products, giving arsenauro for six weeks, resting one week and then giving mercauro for six weeks, then leaving the patient off of any drug for two months. Frequently the acne eruptions will disappear after the discontinuance of the remedies, due to the remote effect of the alteratives.

One of the most obstinate eruptions to cure is lichen rubra (Hebra's disease). Here it is well to alternate with mercauro.

In psoriasis arsenauro first increases the redness of the skin and

seemingly aggravates the disease, but this symptom passes off and the patient recovers.

This is important to remember, as otherwise the drug may be stopped just at the wrong time. Pemphigus, lichen and lepra yield to its influence in most instances.

In diabetes and pruritus vulve it is eminently indicated.

In coryza, chronic nasal catarrh, hay fever, results are most gratifying.

The use of arsenauero alternating with mercauro in all stages of phthisis gives the most surprising results.

In gastric cancer and ulcer, arsenauero given in small doses, say three drops in water four times a day, relieves the pain and checks the vomiting. Whenever a patient begins taking these solutions he should be cautioned to watch for any puffiness about the eyes, particularly in the morning on arising, and for slight laxity of the bowels and griping. These are signs that the patient has reached his physiological tolerance and it should be stopped for a day or more. The swelling under the eyes may spread and amount finally to a general anasarca and is due to a cellulitis at first and afterward to a true effusion.

Rickets in children calls for a dietetic treatment, improvement in food and digestion. No part of the body fails in force more than the digestive apparatus in the presence of this disease, probably because the alkalinity of the blood is altered and partly because the stomach cannot secrete properly former juices from imperfectly supplied glands. No tonic is comparable with arsenauero in this condition, for really inanition is the cause of the bone salts starvation. It is now an established fact that arsenauero will abort incipient phthisis.

Numerous clinical statements from physicians who are qualified observers will attest this fact. It may be laid down as a rule that in all cases where the nutrition of the patient is not beyond repair that these solutions will produce a result never before obtained. In incipient phthisis or pulmonary consumption, I mean that very early state in which the

following history is given or a similar story is elicited, a patient formerly strong and well begins to lose vivacity, life becomes a burden and exercise is distasteful. A slight daily morning or evening chill and fever develop and a physician who is careless treats the case as one of mild malarial poisoning. Examination, however, will show an area somewhere in the lung, generally near the apex on either one or both sides, where slight prolongation of expiration, with a harsh inspiratory sound is heard and percussion will give impaired resonance. In other words, the first stage of phthisis is present and the physician must resort at once to active measures by the use of one or the other of these solutions. They seem to act by supplying vigor to the individual, removing the conditions necessary to the existence of the bacilli.

Why such remarkable results should be obtained from these solutions is a matter for further investigation, but it is nevertheless a fact that all bacilli in the sputa soon disappear and the well-being of the patient is readily manifest.

A distinguished physician in the South told me, "Why, in three weeks I could see the increase of blood in my patient from the use of these wonderful alternatives."

The combinations of bromide of gold with bromide of arsenic and bromide of mercury in an aqueous solution, made by the Charles Roome Parmele Company, of New York, are certainly elegant preparations. Seemingly they are expensive, but in reality they are not. Most patients will take 10 drops three times a day, which costs them 6 cents a day, or about \$2 per month.

How many physicians or surgeons are aware of the fact that 1-20 of a grain of bromide of gold is equal in effect to 30 grains of bromide of potassium or sodium, these gold solutions containing in each 10 drops 1-32 of a grain of the bromide of each of the metals, gold, arsenic and mercury.

Goubert has brought forward bromide of gold as a remedy for epilepsy and the reports on its efficiency are a remarkable testimony to its suc-

cess. It is asserted of arsenauero (and is true) that it causes no depression, but stimulation of the sexual functions of both sexes. This seemingly is due to its powerful red blood producing power in the cerebro-spinal system.

There are two classes of cases which are denominated chronic that present themselves for treatment to the medical practitioner, that is they belong to one of two classes.

Either neurotic, viz., vaso-motor, which manifests itself as neurasthenia, chorea, nervous prostration, migraine, chlorosis, anemia, melancholia, hysteria, epilepsy, etc., etc., or else they are syphilitic and the manifestation may be rheumatism, iritis, irido-chorioiditis, periostitis, locomotor ataxia, hemiplegia, cirrhosis of the liver, etc., etc.

If they are neurotic (vaso-motor), then arsenauero is indicated.

If specific, or there exists a deposit of connective tissues other than from traumatic causes, then mercauro is indicated.

The lady who presents herself giving a history of having had the grippe and seemingly never having recovered, as she has vague pains, is troubled with lassitude, insomnia, appetite capricious, is subject to cold, has cold hands and feet, with the blue veins showing prominently under the skin, is the type of a vaso-motor perturbation.

The entire nervous system is at fault. Let the sceptic put such a case on arsenauero and keep her upon it for six weeks, examining the blood microscopically when beginning the medication, and just as fairly examine the blood at the end of six weeks. The result makes him an enthusiast, whereas he did not previously believe in any medication.

Take the case of locomotor ataxia and note the wonderful improvement in gait and general nutrition. A case of peripheral neuritis pronounced incurable by a renowned neurologist was absolutely cured by six months' treatment with arsenauero. Shoemaker in the last edition of his *Materia Medica and Therapeutics*, accords to these solutions a high place as alteratives, and especially mentions their use in chronic eczema.

Potter, also, in his new work on *Materia Medica and Pharmacology* gives proper mention to these valuable agents.

When the progress of syphilitic ulceration threatens serious impairment, even destruction of an organ, in ulceration of the vocal bands or gummata or other forms of specific outgrowth impinging on the peduncles of the cerebellum, or medulla oblongata, or the crura cerebri, or in other situations, the rapid progress of the disease may require the hypodermic use of it. Being so readily soluble physiological effects can be looked for quickly. Pathology has not discovered the real cause of anemia and until it can point its finger at the most intricate mechanism of hemoglobin, we must remain satisfied to resort to the remedies which experience tells us are of value to this class of patients. Many theories have been advanced regarding the cause of anemia. Practical experience does not support the use of iron in anemia and chlorosis, but rather the contrary.

With the anemia of rapid child-bearing and lactation, iron in the form of Bland's pill is of undoubted value, but at the head of the list of therapeutics applied to anemia stand the tonic alteratives arsenauero and mercauro. It is perfectly true that we have almost no knowledge of the exact manner in which they act in instances where through morbid functional activity, enlarged glands or growths appear. It is evident that they must act upon the trophic nerves or directly upon the nutrition of the affected parts. If they are used in large doses they act as depressants to the normal nutrition of the body, producing primarily a decrease in the vitality of the morbid growths so that they melt down and disappear. Whether these are due to over stimulation or nutrition, that is, to an excessive trophic change or whether they depend upon actual lowering of the tone of the parts we know not. One thing we do know, however, and that is that small doses of the alterative drugs act as very distinct stimulants to the development of normal structures and in no instance do we find this



more typically represented than the effect which they exert upon the blood.

Many years ago Keyes, of New York, pointed out the value of corrosive sublimate in small doses in specific and other anemias. Numerous writers confirm his views.

Here is a point of practical value, viz.:

In all anemias give mercauro in small doses, say six drops in water after meals. The marked increase of nutrition, in children of syphilitic taint by using this product is promptly manifest.

The valuable combination of bromide of arsenic, bromide of gold and bromide of mercury appeals to thinking physicians as the most valuable combination to use.

The bromide of mercury is the most acceptable to the stomach of all the salts of mercury, but if given in excess it is cast off in the urine and feces unused and wasted, straining the emunctories of the body during its passage through them.

The oculist must stop a minute and think of arsenauro in atrophy of the optic nerve.

The nose specialist must look at the formula of mercauro when he has a case of hypertrophic rhinitis and give it, for it will aid him to prevent atrophic rhinitis.

The aurist meets cases of deafness about middle life, progressive in course and which are due to adhesion of the drum membrane to the walls of the middle ear, mercauro is indicated.

And here is another secret of the action of these agents. Whenever we have sclerosis, whether in the spine or brain, liver or the eye, nose or lungs, these solutions are indicated, because they prevent fibrous degeneration.

The laryngologist meets tubercular, syphilitic and other forms of chronic laryngitis. How magnificently mercauro comes in here, and how often are we appealed to by patients for relief from the hot flashes at the menopause, an expression of a perturbed sympathetic system which arsenauro so antidotes and corrects, without producing anemia

of the cortex of the brain and the depression which follows the administration of the other bromides.

All of us meet cases of tubercular adenitis in children whose complexions like wax show the malnutrition present in their little bodies. Give that child arsenauro and note disappearance of its glandular troubles, as well as its rapid restoration to health.

In a case of specific periostitis, a patient took mercauro for three weeks and was enabled to resume his duties. He had not worked in over 12 months previously on account of swelling and lack of motion in both wrist and knee joints.

In chronic Bright's disease, arsenauro is of great value and soon decreases the albuminuria. In cases where pronounced anemia is present coincident with this disease in which great arterial pressure exists (and iron in any form is absolutely contraindicated, because it raises the blood pressure,) actual experience demonstrates that arsenauro in these cases lowers the blood pressure. In the interstitial forms of the disease preference should be given to mercauro. We must try to arrest the development of the renal lesion and improve the general health, treat the symptoms that are not dependent upon the nephritis (except indirectly) and last treat those signs which are due to the nephritis itself.

In diabetes mellitus, arsenauro is a sheet anchor and should be given in as large doses as the patient can bear for a long time. Unfortunately we do not know the innermost cause of diabetes nor the manner in which cannot explain the manner in which this combination acts. That it does act there is no question.

Evidently the therapy of this product in these cases is due to the fact that it is a tonic and nutrient to the nervous system.

In conclusion let me impress upon my colleagues the wide range of usefulness of these tonic alteratives. Remember the fact that a cause exists which manifests itself by perversion of function either external or internal.

The cause may be an acute disease.



If so these products are contraindicated.

"Weave science and practice into so close a network that the foundation of experience may be cemented by the mortar of exact knowledge."

Abandon the rut of routine prescription work, and be the student still, for the rapid march of progress

in other fields is not absent in medicine.

I feel truly grateful to my colleagues who have contributed to the literature upon these very remarkable products.

He who profits by the recorded experience of others is the conscientious practitioner.



## Editorial

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### THE TUBERCULOSIS SCORE.

Some two years ago the editor of this journal, Dr. Frank S. Parsons, in a compendious, common-sense publication, incontestably demonstrated that tuberculosis was neither infectious nor incurable, as the bacteriologists would have us believe. At the same time Dr. Parsons did not deny that the presence of large covies of Koch's bacilli in the sputum do convey an important diagnostic and prognostic significance.

It is refreshing and noteworthy to observe that at the late meeting of the Associazione Medica Lombarda, at Turin, the fearless position which Dr. Parsons assumed has been defended and reiterated, viz., that the "*locus minoris resistensiae*," and not the bacillus, should be the objective point in medical therapy; the improvement of the patient's general condition, the toning up of the system by such medicines, environment,

diet, etc., as would prevent tissue degeneration, or restore full functional activity in enfeebled organs.

As the Italian savants put it, "the disease caused by the germ is nothing more than a scrofulosis, the skin, the cartilage and the bone disclosing it. For example, it may lie hidden in the healthy viscus of a person whose resisting power is enfeebled by a blow. Phthisis, according to the consensus of opinion of Gatti, is not caused by Koch's bacillus nor is it infectious or contagious, but a disease dependent on a perversion of nutrition and conditions, caused by social, economic and hygienic influences having their roots in our *modus vivendi*."

But we refer the whole valuable and timely contribution (*Lancet*, Jan., '97) to our readers for their own conclusions.

Without doubt, tuberculosis is

the most widespread disease, in its latent and other forms, known to humanity; and happily it is the one most amenable to therapy.

We have no proof, and never had, that it is directly contagious, and until this is forthcoming let Boards of

Health and laboratory experimenters keep their hands off and leave the management of this malady to the family physician or hospital authorities, whose knowledge and experience best qualify them to cope with it.

T. H. M.

### THE LATEST VIEWS ON PHTHISIS.

The Associazione Medica Lombarda, as The Lancet from time to time has shown, is eminent among her Italian sisters for work not more independent than sound, and the "full-dress discussion" the other evening, in which her leading members took part, on "Phthisis, its Primary and Secondary Causes," was quite equal to her best traditions. Fifteen years ago phthisis was accepted by most pathologists as co-extensive with tuberculosis. It was an infective disease determined by the action exerted on various organs by the bacillus of Koch. The objection that it could be infective and at the same time hereditary was met by the explanation that not phthisis *per se* but the predisposition to phthisis was hereditary. The children of phthisical parents were thus particularly vulnerable in presence of the bacillus, a neglected "cold" or a slight influenza sufficing to invite the infection. The infective power of the bacillus was, indeed, the most formidable factor in the disease. No one was safe. Laboratory research showed the diffusion of the bacillus to be well-nigh limitless. Not only the air, but the food and drink, nay, the house furniture, the benches of schools, the compartments of railway carriages, the books of library shelves, and banknotes, all were potential or actual transmitters of the dreaded germ. Fifteen per cent. of the living harbored it; in the dead it was found in the ratio of 30 per cent. Panic at its ubiquity inspired

the search for specifics against it. In spite, however, of antiseptic solutions, parasiticide injections and immunising serums innumerable the bacillus refused to yield, cropping up mercilessly in the sputum, to confirm what used to be ridiculed as an Italian superstition—viz., the danger of living near, or succeeding to, people given to coughing and clearing the throat. Of late years, however, the panic has died down. Phthisis is acknowledged to be eminently curable. Under sound hygiene pulmonary tuberculosis is daily being arrested. Surgical intervention often suffices to cure a peritoneal phthisis. The sputum is seen to be dangerous only in a state of perfect desiccation. Even the breath of the phthisical may be respired with impunity. The bacillus of Koch, though still a power, is no longer supreme according to many pathologists. According to others there are concomitant bacilli even more dangerous, to which that of Koch is simply the "crossing-sweeper" facilitating their entrance. Thus, these observers explain the fact that in all the more pronounced cases of phthisis there are found other bacilli; while those cases in which the bacillus of Koch is alone detected are generally mild and run an easily tractable course. The hectic fever, symptomatic of the graver forms of phthisis, is accounted for by these concomitant bacilli only. Yet another group of pathological assailants the bacillus of Koch has to confront. These would assign

it a simply accidental role—appearing in local manifestations merely, manifestations well defined and eminently curable. The disease caused by it is nothing more than a scrofulosis, in which the glands, the skin, the cartilages and the bones disclose its invasion, with a reaction for the most part favorable. The bacillus, for example, may lie hidden in some viscus of a healthy subject whose resisting power by a blow or a wound is temporarily impaired, but which soon rights itself, to the expulsion of the intruder. Phthisis according to the consensus of debaters led by Dr. Gatti at the Associazione Medica Lombarda, being not due to the bacillus of Koch, being neither infective nor contagious, resolves itself into what it appeared to be to the former generation—a disease of nutrition, a perversion of hygienic conditions due to causes economic, social and others having their roots in our *modus vivendi*. The primary, the essential factor in the evolution of the phthisical state is degeneration, organic decay, while the intervention of the

bacillus of Koch represents only “un accidente terminale,” a modification of a process already determined. In certain subjects, honeycombed by insufficient alimentation, tuberculosis is but an anticipation of the decomposition ensuing after interment. As, indeed, Virchow and Hansemann have shown, there are phthisical patients in whom the bacillus of Koch is “conspicuous by its absence,” while there are maladies—diabetes, for example—in which tuberculosis is a complication almost invariably present. We return, then, to the pathology, the prophylaxis, and the therapeutics of our fathers—such, at least, is the outcome of the memorable discussion by the Milanese pathologists and consultants the other evening—and relegate to the first line among the causes and the cure of phthisis those factors and agents which have been temporarily pushed back into the second—factors represented by a violated hygiene, and agents recruited from the resources by which that hygiene is vindicated and restored.

—London Lancet.

## OUR PRESIDENT AND THE NEW YORK ACADEMY OF MEDICINE.

The President of the United States, Mr. Grover Cleveland, delivered the address of the evening at festivities attending the late celebration of the semi-centennial of the New York Academy of Medicine.

It is needless to say that the presence of so distinguished a dignitary made quite a stir in the profession in New York, who turned out in considerable numbers to hear him. For various reasons, however, it appears that the attendance was not worthy of the occasion and the enthusiasm was only half-hearted and artificial. Just now the chairman of the Committee on Reception, Dr. William T.

Polk, because of his attitude in the late rush for hospital spoils in New York, is not in the best odor with the profession, who besides “have an ax to grind” with the President for his indifference to their appeals for justice, when Dr. Kirshner was outrageously dismissed from the medical staff of the navy.

But what we are concerned with chiefly is the President's speech, as it applies to vital issues of our time.

He first advises doctors to go into politics more and fight for their rights in legislative chambers. Very excellent advice from a theoretical standpoint, but quite impracticable

and imprudent, except for those who intend politics as a career. Had he added "professional" politics we would agree with him that the place to adjust medical difficulties and formulate schemes of sanitation, etc., is in medical politics in our county, State and national associations.

A touching allusion was made to the country doctor of the past; his versatility, humanity and integrity.

Reference was made to the enormous strides of modern science and

the importance of the physician more actively participating in the affairs of citizenship; but the President seems to forget that the craft—the Bar—of which he is a member, has the medical profession by the throat and deny us even our equal rights as citizens when an opportunity offers; as, for instance, in New York, where a prize fighter or a gin-slinger may become the president of the Board of Health, but the law vigorously excludes physicians.



## Book Reviews.

**A TEXT BOOK OF SPECIAL PATHOLOGICAL ANATOMY.** By Ernest Ziegler, Professor of Pathology in the University of Freiburg. Translated and edited from the eighth German edition by Donald McAllister, M.A., M.D., Lecturer of Physic and Tutor of St. John's College, Cambridge, and Henry W. Cattell, M. A., M. D., Demonstrator of Morbid Anatomy in the University of Pennsylvania. Sections I-VIII. New York. The Macmillan Company.

A work which since the year 1884 has had five successive editions in Germany, the land of pathologies and pathological work, is likely on the face of it to be of exceptional value.

The volume before us forms but half the text book, parts I to VIII. The remainder in a similar form will shortly appear. There will then probably not be a more satisfactory work in the English language on this subject than Ziegler's last edition of general and special pathology. From one of the greatest faults common to German writers, involved sentences, he is singularly free.

No American could, I think, more clearly state the various points made. Perhaps much of this is due to the translators, who have given us a book of good, clear, grammatical English.

As a rule no one sits down to a text book as one starts a novel—with the intention of going straight through. It is used mainly as a reference book, and for this purpose the index cannot be too complete

and the facilities for finding the topic in the page too good. I have text books in my library of which sometimes I must read over an entire page before I can find the word to which the index referred, and that in spite of the fact that this word is the subject of a new topic or paragraph and the key word of the whole affair.

In Ziegler each topic is separately paragraphed and the subject set in heavy-faced type, as are also what might be called the subsidiary subjects, the whole making a page in which at a glance one's eye will be arrested by the word for which one is looking.

In a subject about which there is so much difference of opinion as to the causes and meaning of various phenomena observed, dogmatism is usually unpleasant reading, satisfactory only to the man who gets all his knowledge out of one book. Some pathologies are simply filled with one man's ipse dixit, and are for that reason misleading to students and offensive to more advanced scholars. In Ziegler, though now a world-wide authority, the first person singular is conspicuous by the modesty and infrequency of its appearance.

So many new cuts have been added and so greatly has the subject matter been altered by reason of the advancement in pathological and bacteriological knowledge since 1884 that for all practical purposes this translation of the eighth German edition is an entirely new book. It would be impossible to suggest any improvement to the typography, paper and general make-up of this work.

E. B. S.





## THE PRACTICAL VALUE OF THE ROENTGEN RAY IN THE ROUTINE WORK OF SURGICAL OFFICE PRACTICE.

BY M. H. RICHARDSON, M. D.

The object of the present communication is to illustrate the usefulness of the Roentgen ray in the daily office work of the busy practitioner. The results which I have obtained in X-ray photography, are not, of course, to be compared with those from elaborately and expensively equipped laboratories and hospitals, for they were all taken in connection with my routine office practice.

They have been selected from a large number to show the value of skiagraphy in the everyday work of one who knows nothing about photography, nothing about electricity and but little about physics; who, in short, knows just enough of the principles involved to enable him to place the patient, the tube and the plate in a proper position and to turn on the current.

A further object of this paper is to show, if possible, that no surgical consulting room is fully equipped without an apparatus for X-ray investigation. Doubtless the application of this device to medical diagnosis is quite as important as to surgical, but this question I leave to others more competent to judge.

In the course of the past three months I have been able not only to make accurate diagnosis in many

cases in which accuracy was impossible without the X-ray, but also to avoid serious mistakes in the investigation of fractures and dislocations. I have been able to watch the growth of an osteosarcoma until, from having invaded half the radius, it had destroyed the whole; to ascertain the situation and extent of patellar and other fractures when such knowledge was of great value, and could have been acquired in no other way. In other instances I have been surprised to see the excessive malposition of fragments which by former methods of examination seemed to be in usually good approximation. It has been possible also to detect foreign bodies in the trunk and in the extremities with a certainty which seemed extraordinary. Results thus obtained in every day work by one so ignorant of the subject led to the belief already expressed that the X-ray apparatus is indispensable to the consulting room; that it is as essential to the surgeon as the mirror to the laryngologist, or the stethoscope to the general practitioner.

The cumbersome and expensive apparatus of the laboratory, of the hospital or of the expert, seems unnecessary in connection with everyday skiagraphy—as unnecessary as a

knowledge of cathodes and annodes, of poles and coils. The technique of skiagraphy, like that of the telephone and phonograph, should be of the simplest kind, and should require only the most elementary knowledge. Not that a knowledge of, and taste for, electricity and physics is useless, but for the general application of skiagraphy such knowledge and aptitude is not necessary.

The essentials, therefore, of an X-ray apparatus for general office work, both in fluoroscopy and in photography are (1) simplicity and (2) ease and rapidity of application. It is extremely desirable that the apparatus, of whatever form, should be connected with the street electrical mains. That form of Crookes' tube is of the greatest value which is not easily disarranged or broken, and which can be easily adjusted in different positions. The sole efforts of the surgeon should be directed to the adjustment of the patient and the tube, and to the use of the fluoroscope, and of the photographic plate. Impairment or complete arrest of even the simplest and best machinery must of necessity take place from the very nature of the process accidents, which cannot be prevented, even by those who are most familiar with electrical machinery. It is essential, therefore, that the apparatus should be supplied by responsible firms who are prepared when summoned to respond at once by sending expert repairers. In this respect the X-ray apparatus should be on the same footing as the telephone, the phonograph and the typewriter. Upon this point considerable stress should be laid, for the breaking down of an apparatus in the middle of an office hour, when, perhaps, appointments have been made for its use, may subject both surgeon and patient to inconvenience and annoyance.

The method should be capable of rapid application. Many machines require so much time for their adjustment that they cannot be recommended, even if their results are superior to those of a method more speedily applied.

In many cases, particularly in examinations of the hand or the foot,

a minute, or even less, is sufficient to give all the necessary information; in others, especially in examination of the thick parts, the shoulder, the knee, the trunk, for example, a longer time is necessary. In ordinary cases of fracture, dislocation or presence of a foreign body, the use of the fluoroscope requires not over five or ten minutes—a period of time which would be a short one for making a careful diagnosis in obscure cases under former methods of observation. I have used the Carbutt plate of various sizes. After an exposure of from 30 seconds to 15 minutes, the plates are labeled, put one side and sent when convenient to the developer.

The value of the X-ray in office work is conspicuous in the detection of fractures and dislocations of the bones; in the demonstration of integrity whenever suspected fractures and dislocations of the bones; in the demonstration of integrity whenever suspected fractures and dislocations do not exist; in the detection and localization of foreign bodies, in the diagnosis of growths composed wholly or in part of bone. It has, of course, other and less important uses. Unless the surgeon has the apparatus at his elbow this information can be obtained only by sending the patient to a hospital or to an expert; even then the surgeon must depend upon an oral or a written opinion, or upon a photograph, unless he goes himself with the patient—reasons which themselves justify the assertion that every surgeon should do his own skiagraphy. In recent fractures, chiefly of the upper extremities, the clavicle and the ribs, the exact position of the fragments, before and after reduction, can be made out. With the aid of an assistant a faulty adjustment may be rectified at once. Displacement of the fragments may be discovered long before the time for reapplication of the splints. In those fractures of the lower extremities which present themselves at the office, the same information may be obtained. Indeed, an early fluoroscope examination of every fracture may soon be required of every surgeon for the protection of the patient

and an early photograph for the protection of the surgeon.

In old fractures the information to be gained by the method under consideration is often valuable, for only in this way can we determine the position of fragments, the point of impingement and the cause of impaired functions. Here, as in most X-ray work, the fluoroscope gives vastly more important information than the photograph, because one sees in succession the parts from every point of view.

Dislocation of the extremities, old and new, can never be overlooked in fluoroscopy. The slightest variation from the normal is immediately visible in an extremity, below the shoulder or the hip. Even in the shoulder an obscure dislocation can generally be detected, unless the parts overlying the bone are unusually thick. The occasional failure to detect a dislocation of the elbow—a mistake with which the most experienced are sometimes confounded—is impossible if the surgeon, as a matter of routine, examines with the fluoroscope. I have overlooked a backward dislocation of both bones of the forearm during twenty weeks' constant observation—an error in which my colleague shared. This fact alone justifies the proposition upon which this communication is based—that the new method of observation is one of the essentials of everyday examination. In another instance, that of a man of 60, the physician in attendance was sure that there was an unreduced dislocation of the humerus. In spite of careful and repeated examinations by the usual methods, I was not absolutely convinced that the head of the bone was in its proper place until I examined the shoulder carefully with the fluoroscope from several points of view.

In ununited fractures, especially of the humerus and of the forearm, the situation of the bone can be detected with great ease. In one instance the physician blamed himself and the patient the physician for a non-union of the humerus, when a careful examination with the fluoroscope showed that the bones were in perfect apposition. What prevented

the union of the humerus it was impossible, of course, to say; it was nevertheless a great satisfaction to know that the non-union did not depend upon any faulty position of the fragments.

In the detection of foreign bodies the apparatus is, of course, indispensable. Two or more points of view are essential to determine by triangulation the exact position of the body. The demands from this source are, however, infrequent. As in other X-ray examinations, the fluoroscope possesses far greater value than the skiagram. Other not infrequent uses for the X-ray in general surgical practice are the demonstrations of bone diseases—exostoses, tumors, loss of substance, irregularities in contour and variations in size. In some instances, notably of osteosarcoma, it is possible to detect the growth in its early stages, as soon as the density and contour of the bone is affected. Such a growth may be watched from week to week; the bone may be seen gradually to melt away before the invading neoplasm. In tumors of undoubted bony origin deductions based upon density may easily be made. Exostoses, especially of the extremities, often present pictures of the greatest detail and accuracy. Irregularities in outline from erosions, necroses, bony deposits, in fact, all forms of bone disease attended by change in form, widen still further the scope of skiagraphy. It must be borne in mind that all the investigations detailed in the foregoing paragraphs may be made in the course of the ordinary surgical examination.

The following cases have been selected from a large number to illustrate the foregoing remarks:

Case 1—July 14, 1896: Mrs. A., aged 32, sustained a fracture July 1, of both bones of the forearm. The fracture had been reduced immediately by a surgeon of great experience. By ordinary methods of examination the arm seemed in perfect condition; in fact, a more perfect approximation of fragments could hardly be imagined. A skiagram showed the radius in good position, the ulna with a marked displacement of the lower fragment. The

patient made an excellent recovery, however, without perceptible deformity or loss of function.

Case II—October 5, 1896: Mrs. B. aged 32, fractured both bones of the left forearm, June 26, by being thrown from a bicycle. The arm was placed in a metal splint half an hour afterward by a physician. On October 5 I found a fracture of both bones of the forearm, with considerable deformity and serious loss of function, both as to rotation and flexion of the hand. The skiagram shows the position of the bones and the amount of deformity. The fluoroscope gave me a most perfect idea of the extent and nature of the displacement. In spite of the displacement, massage by Dr. Graham has considerably improved the arm.

Case III—October 10, 1896: Miss G., aged 27, fell, January 10, 1896, in the street and fractured the right patella. She was kept in bed, with the usual treatment of such injuries, for three months. A second fall resulted in a refracture, with excessive separation of the fragments of the patella. The fluoroscope showed that the lower fragment was directly over the articulation between the tibia and the femur; that the upper fragment was some four inches higher; that there was a third small fragment loosely attached to the lower one, and slightly separated from it. This fragment was shown to be also partly divided; it could not be detected by digital examination. The seat of injury was exposed on October 13, 1896, and, after much difficulty, by cutting the tendon of the quadriceps above and below the patella, the parts were brought into position. The small fragment interfered so much with approximation that it was entirely removed. The patient has made a good recovery.

Case IV—October 13, 1896: Mr. C., aged 62, had been troubled for six years with a painful thickening of the terminal phalanges of the great toe of the right foot. Digital examination seemed to indicate a thickening of the bony parts of this toe. A skiagram showed most beautifully all the bones of the foot, but nothing could be seen indicating dis-

ease of the bone. The demonstration was very satisfactory and solved the question of operative interference.

Case V—October 16, 1896: G. B., a boy of 12, had been injured in the left hand, two weeks before, by a bullet from an air-gun. It was not supposed possible by the attending physician that the bullet had penetrated the palm. The fluoroscope showed plainly a small metallic object over the distal extremity of the middle metacarpal bone. A side view showed the depth of this bullet in the palm. Under cocaine the bullet was removed.

Case VI—October 17, 1896: General W., aged 59. This gentleman had had for five months a painful swelling in the right wrist. By means of the fluoroscope the ulna was seen to be intact, the radius to terminate abruptly in the faint shadow of the carpal tumor. A thin shell of the radius could be seen remaining. The diagnosis of osteosarcoma of the radius, made from the history of the case and from the inspection and digital examination, was practically proved by the fluoroscope and by the skiagram. A previous consultant had assured this patient that the tumor was an aneurism of the radial artery. In a second skiagram, taken a month later, the shell of bone had entirely disappeared, a fact that demonstrated the bony origin of the tumor and the rapidity of its extension. The arm was amputated and the disease proved to be an osteosarcoma of the radius. In a precisely similar case Mr. F., aged 73, a tumor of the left wrist was diagnosticated beyond a doubt by the Roentgen-ray. In this case, skiagraphed by an expert, the bony structure of the tumor could easily be seen. The arm was amputated after the incision of the tumor and the microscopic demonstration of its nature.

Case VII—October 17, 1896: Mr. P., aged 27, presented himself with a fracture of the patella of three months' standing. The fluoroscope and skiagram showed a ligamentous union of a fracture in the lower and middle thirds of the patella. It was proposed to allow the man to go about his business. The fragile

union, clearly demonstrated by the X-ray, alone justifies the opinion that he ought not to use the limb freely till the expiration of six months.

Case VIII—October 19, 1896: Mr. J. M., aged 60, had received from a fall a compound fracture of the left leg. The bones of the tibia and fibula had been extensively comminuted, with laceration of the skin. He was under my care at the Massachusetts General Hospital, where he remained some three months. On his discharge from the hospital the leg was perfectly straight; there was no impairment of the function of the

ankle and the union was unusually firm; yet a rather poor photograph clearly shows the extraordinary position into which the bones had been adjusted.

Case IX—L. S., a girl of 13, had suffered for nine months with a large painful tumor of the left thigh. After amputation at the hip joint an X-ray photograph was taken of the tumor. The relation of the tumor to the femur, and the involvement of the bone were more clearly shown than was possible in any other way. The growth was an endothelioma (Wright). The patient made a good recovery.—Med. News.

<p><b>COCAINE</b></p> <p>C.P. ANHYDROUS CRYSTALS.</p> <p>STANDARD OF PURITY</p> <p>THE WORLD OVER.</p>		<p><b>MURIATE</b></p> <p>BOEHRINGER-B.&amp;S.</p> <p>DISPENSED BY</p> <p>ALL DRUGGISTS</p>
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## Current Medical Literature.

### SOME POINTS IN THE TREATMENT OF PNEUMONIA.

By Tom W. Robbins, M.R.C.S. Eng.,  
L.R.C.P.Lond., etc.

The Medical Times and Hospital Gazette, in its issue of September 5, contained, under the above heading, a sensible and valuable article. Such an article is extremely useful to the busy practitioner, containing, as it did, concise and definite information on the nursing, treatment by drugs and general management of the patient suffering from pneumonia. But to myself, and probably to other medical men, there will be apparent an omission in the armament of Dr. French in dealing with this disease. I refer to the external application of cold, whether this be applied by means of ice, snow or cold water. This valuable weapon (I had almost said specific, for so I hold it to be if applied in the early stages) is passed over with just a cursory mention of cold baths as not being applicable in private practice. For some years I practiced in Canada, where pneumonia is met with in greater proportion to amount of population than it is in England. In fact, the dryer the climate, the more prone the lungs seem to active inflammation, and the percentage of deaths among men working in some of the dry, mountainous regions of the Western States is very great from this disease. Perhaps it would be as well to remember this when maligning the English climate for the prevalence of rheumatism and bronchial troubles. While practicing in Canada I commenced to treat my cases by cold applications, and have never regretted doing so. The

treatment gives every satisfaction; it reduces the temperature, eases the pain, relieves the cough, stops the expectoration of blood, shortens the duration of the attack, and causes convalescence to be less prolonged. To take these points in detail: Reduction of temperature—the application of cold invariably succeeds in effecting this, at whatever stage of the disease it may be applied. But the lasting result varies with the stage in which the cold is applied. If this be very early in the attack, before there is much exudation, the temperature comes down to normal point and stays there. But it is seldom such a result can be obtained, for the reason that one does not see the case early enough. The usual time to see the case and apply the treatment is the second day, when the pathological changes in the circulation through the lung tissue have gone too far to hope for such a prompt issue. Applied at this time the cold reduces the temperature probably from 103 degrees to below 100 degrees. After some hours heat again increases, but the temperature seldom reaches a point equal to its first height. While the temperature is falling the pain decreases, and the other symptoms are all alleviated, the effect on the cough and expectoration of blood being very marked. I have seen the latter stop almost instantly in a well-marked case of three or four days' duration. The average length of an attack of pneumonia treated by this system is about four days. The earlier the cold is applied the better will be the results. If treatment is started immediately dull-



ness of lung and tubular breathing are distinguished there is a fair chance of convalescence being established in twenty-four hours, and one thorough application until the temperature comes down to about 99 degrees will be all that is necessary. This will probably be effected in about four hours. But if the disease has a day or two's start in the race the temperature will rise again, and necessitate a second application, and so on. If at any time the cold should be continued too long and produce symptoms of collapse, brandy must be given and warmth applied to the body. This need never occur if care be taken to cease applying whenever shivering occurs or the patient even feels cold. The patient, almost without exception, finds the application pleasant, and even children bear it well. Those who have tried both greatly prefer the cold applications to the old hot poultices. During the four or five days, which is the average length of the attack under these circumstances, the patient will be far more comfortable and less seriously ill than he otherwise would be, and the escape from the heavy poultice with its frequent and constant change, and its sensation of weight and retained heat, is no light relief to the sufferer. That the cold application is actually pleasant to the patient comes as a surprise generally to the sufferer and attendants. Of the three—ice, snow and cold water—the former two are more efficient, and I have always applied them wrapped in a dry towel and covered with a dry flannel, changing the towel and flannel when they become warm and wet, and renewing the ice or snow as needed. The frequency of renewal depends upon the temperature, and will be needed less often as this falls. I have preferred this mode to the ice bag, thinking that perhaps evaporation plays some part in the curative process. If neither ice nor snow is procurable, the coldest water can be applied wrung out on a towel, and renewed when becoming warm. It seems to be sufficient to reduce the temperature below 100 degrees, as, after this has been effected, the patient complains

of feeling the applications to be cold, and if carried farther shivering sets in. As regards the actual spot on which to apply the remedy, I endeavor as much as possible that this should be over the area of mischief, avoiding the pre-cordial region, but I am inclined to think that this is immaterial, and that the application to any part of the chest wall would be equally efficacious. The size of the cloth when folded should be in relation to the girth, etc., of the patient. The most probable explanation of the action of this remedy is that it acts as a powerful reflex, stimulating the lung blood vessels to contract, which would account for the much quicker and more permanent effect it has before exudation has commenced or proceeded far, and only stasis and congestion have to be reckoned with.

—Medical Times and Hospital Gazette.

#### THE EFFECTS OF INFLUENZA ON THE HEART.

Batz has published an instructive work on this subject (*These de Bordeaux*, 1896), in which he describes the cardiac complications of influenza and cardiac influence, there being a distinction between the two. Under the first heading are included pericarditis, endocarditis and myocarditis; while the second, a term due to Huchard, includes a much more complicated series of alterations in the heart's action through its nervous apparatus. The cardiac rhythm is more or less altered, there being acceleration of the beats, equalization of both pauses, and both sounds come to resemble each other, a condition to which the term "embryocardia" has been given. Influenza would seem to be the disease in which this is most frequently met with, and its prognosis is very grave. The pulse very often becomes irregular in every way; it is frequently intermittent. There may be an extreme degree of bradycardia, the pulsations having been found as low as 15 or 16 to the minute. On the other hand a high degree of tachycardia has been noted by several observers. Extreme cardiac weak-

ness, followed by syncope, is another frequent complication, but the author more particularly draws attention to influenzal angina, which bears a marked resemblance to angina pectoris, with which, indeed, it is probably identical, being produced under the same conditions and accompanied by the same symptoms. There may be the same pain pre-

ceded by a kind of aura and a feeling of constriction of the chest. The duration of these sensations is variable, for the most part lasting some time. The author thinks that the variability of these cardiac affections depends on whether the vagi, the sympathetic, or intracardiac ganglia are affected, or they may even depend on a bulbar origin.



## Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

### SURGICAL IODOFORMISM.

Tussau, in the Dublin Medical Journal, describes a pathological state which he names "surgical iodoformism," as distinguished from iodism. It occurs in some patients who have had their wounds treated by iodoform, and usually runs the following course: After a longer or shorter period of complete toleration the wound, while secreting no pus, is surrounded by an inflammatory area with development at its circumference of inflammatory vesicles (iodoformic herpes). Petechiae appear near the wound or at a distance in patches or groups. The wound stagnates and inflames, but does not heal. A generalized pruritus along the collateral nerves of the fingers follows (iodoformic zoster), later blebs and diffuse phlyctenulae. Areolar or pseudoerysipellatous lymphangitis appears in the affected limb. If the use of iodoform is persisted in the lymphangitis progresses, the tongue becomes coated and the patient is agitated and sleepless. A phlegmonous condition with general symptoms develops, and necrosis may threaten the patient with loss of limb or life. The symptoms in question seem to occur only in presence of a wound dressed with iodoform, and application of this substance to mucous membranes—for example, erosions of the cervix uteri or urethra—do not produce them. The surgical dressing of burns with iodoform is, however, very dangerous. The pathogeny of

this group of symptoms is due to a localized or generalized reflex poly-neuro-dermatitis dependent on localized or generalized reflex polyn neuritis. Iodoformism is not simply iodoformic herpes; this is only a first stage of its manifestation.

### INTUSSUSCEPTION.

Rydygier (The Clinical Journal) has been able to add 84 new cases to the 66 collected by Braun. Operative interference is as important in intussusception as in strangulated hernia. Rydygier always makes two attempts at reduction by the injection of water, and, this failing, proceeds to operation. The formation of an artificial anus is only to be recommended in case of threatening collapse, for only two cases have recovered after such treatment. Entero-anastomosis is also to be excluded, for it leaves the disease unattacked. Disinvagination gives the best results, but, this failing, the Jessett-Barker method of resection is probably the best. The advantages of this method of resection are: (1) A small amount of intestine only is sacrificed, (2) the tying off of the mesentery is accomplished in one stroke, (3) the suture is applied in the shortest possible time. In cases of acute intussusception the author arrives at the following conclusions: (1) Operation must be done as soon as possible after the failure of careful bloodless methods, (2) after lapar-

tomy, disinvagination is the method of election, (3) where disinvagination cannot be accomplished resection is to be performed, (4) the entire mass is to be resected when the invaginating sheath shows marked changes or where perforation is feared, (5) the formation of an artificial anus and entero-anastomosis are only justifiable when there is imminent danger of collapse. Chronic intussusception should be treated on similar lines, and temporizing without good reason is bad practice, as acute changes may develop.

#### ACUTE INTESTINAL OBSTRUCTION.

On December 11, 1896, Dr. McArdle read a paper with this title before the Royal Academy of Ireland. The cases quoted were 41 in number, of which seven were fatal, and included instances of obstruction by bands, intussusception, volvulus, acute enteritis, perforative peritonitis and appendicular disease. McArdle pointed out that the delay occasioned by trying medicine and enemata often placed the patient beyond the reach of surgery. Prolonged medical treatment was not justifiable, because, as noted by Treves, of 1000 deaths from intestinal obstruction only 60 were from causes removable by medical means. The chances are all in favor of the obstruction being of such a nature that surgical interference can alone avail. It is therefore to be regretted that some modern writers advocate persistent efforts with enemata, even after dangerous symptoms had shown themselves. McArdle did not advocate indiscriminate laparotomy, but after calling attention to many cases of acute intestinal obstruction in his hospital and private practice, in which death occurred before he had an opportunity of operating on the cases, he held that, with the present safe methods of dealing with abdominal wounds and the rapidity with which Paul's tube, Murphy's button and such appliances enable us to deal with lesions of the bowel, the intestines should be exposed much earlier and with greater frequency.

#### NEW METHOD OF FASTENING THE ROUND LIGAMENT IN ALEXANDER'S OPERATION, WITH LITTLE DISTURBANCE OF ITS ANATOMICAL RELATION.

Dr. J. Frank, Chicago, described his method as follows (Fassett's Bur. Med. Press report of Miss. Val. Med. Asso., Sept., 1896):

An incision an inch long is made midway between the anterior spine of the ilium, and the spine of the pubes, a trifle above Poupart's ligament. The transversalis muscle is pushed back, and the ligament lifted out with a blunt hook, such as I here show you. Draw it out until the uterus is in the correct position. No great difference is experienced if the peritoneal cavity should be opened. Usually three sutures are required to close the wound, the first one being taken as low as possible through one flap of the peritoneum, then through the round ligament itself; instead of drawing the ligament through the fascia, as formerly practiced, it is replaced in its anatomical position beneath the transversalis muscle. By this method a slough of the ligament is prevented. This operation is the simplest of all yet proposed for the purpose. As a suture material kangaroo tendon has proven most satisfactory in my experience. A pessary should be fitted in before the operation, and worn as long as may be deemed necessary by the surgeon afterward.

#### APPENDICITIS—TO OPERATE OR NOT TO OPERATE.

Dr. James H. Dunn, of Minneapolis, read a paper on this subject (before Mississippi Valley Medical Association, September, 1896, reported by Fassett's Bur. Med. Press).

If we could but foretell which of our cases were going to be fatal we could much more easily and satisfactorily decide this question. The percentage of fatality is yet too high. Yet must we cease operating because of such fact? A certain number of these cases will recover without surgical interference. In-

deed, there is so large a number of such that we very often, in our enthusiasm, operate when it would have been much better to have left them alone, so far as the knife was concerned.

#### ON THE TREATMENT OF BU-BOES.

The trite subject of the treatment of buboes following soft chancres is still one of interest both to the patient and the practitioner. These cases are of a most tedious character when treated by ordinary means, so that surgeons have been led to advise the excision of the affected glands whether suppurating or not. Such treatment, if one obtains union by first intention, undoubtedly shortens the ordinary duration of the disease, but I have been so impressed by the dangers of the operation, which involves an extensive dissection in the neighborhood of the saphena and femoral veins, that it seems unjustifiable to adopt such radical measures in an uncomplicated case. We must reserve this procedure for such cases as have proved intractable to other means, or the slight mortality of buboes will be largely and unnecessarily increased. Dr. Clifford Perry has recently had this subject under review, and considers that the best treatment of non-suppurating buboes of chancrous origin is by the intra-glandular injection of a 1 per cent. solution of benzoate of mercury—a method of treatment first advocated by Welandier, who claimed to have cured 56 out of 78 cases without suppuration, and as the usual percentage of buboes which suppurate is about 42 per cent. of the whole number, this result was extremely good. Dr. Taylor recommended the injection of a solution of carbolic acid (20 to 40 minims of a solution of 10 grains to the ounce), and said a cure was effected in eight to ten days, and Harvey supported him; but this method, like that of the injection of bichloride of mercury, does not seem to have stood the test of time. If all that Perry claims for the benzoate of mercury treatment be corroborated by further

trials, we shall have a most useful addition to the treatment of these chancrous glands. He employs this remedy not only in the non-suppurating cases, but also in those which suppuration is threatening, so long as fluctuation is not actually present. About 20 or 30 minims are injected at one or more points into the gland substance. This causes a burning pain for two hours, and generally some fever (99 degrees F. to 104 degrees F.) lasting for a few days. "In two or three days after the commencement of treatment the bubo is much diminished in size and resolution is taking place." A small quantity of pus generally forms in the centre. This is relieved by incision and the application of an antiseptic dressing. "In a few days all discharge ceases, the remaining induration rapidly subsides and the bubo is cured." In 22 unselected cases treated by this method he found the average time necessary to effect a cure to be about 14 days. This is less than half the time usually occupied by cases that are excised, but is about the same time as that claimed by Woodward, who advocates early incision and packing with iodoform gauze. As regards the treatment of suppurating buboes, Perry's conclusions are much the same as those of most of us. He finds simple incision, or incision and curettement, to be more or less slow; but, as already suggested, these means though slow are very safe.

—From the Bristol Medico-Chirurgical Journal, Dec. 1, 96.

#### PALLIATIVE TREATMENT OF MOVABLE KIDNEY.

The best mechanical treatment consists in pressing into the surface of the abdomen a large and pretty thick falciform pad, whose concave curve is a little bigger than the contour of one side of the kidney. This is kept in place by a belt or truss spring, according to circumstances. A movable kidney is most commonly found high up in the inguinal region; further, the pain usually only arises when the trunk is erect, and ceases with recumbency. In such instances



the pad is pressed in just below the kidney, so as to make, as it were, a shelf on which the kidney can rest. The pain is ordinarily due to the kidney dragging by its own weight on the vessels and nerves which constitute a cord running to it; and the pad by under-support takes off this strain. It is wise to only fix the pad temporarily to the belt, as the best position for pressure is frequently found out experimentally by the patient. An enlarged and tender ovary is sometimes confused with movable kidney, but the same belt and pad treatment generally alleviates both these conditions.

—The Lancet (New York).

#### SURGICAL INTERVENTION IN RENAL TUBERCULOSIS—ITS HISTOLOGICAL GENESIS.

M. Tuffier has operated in 15 cases of tuberculous kidneys since 1888.

The dominant symptoms of this malady are: Hematuria, pain and infection.

Hemorrhage itself may place our patient's life in imminent danger by its great excess, as haemoptysis may, from the lungs.

When medication fails to arrest this operative measures may be necessary.

Pain appears in nephritic colic, frequently repeated. Phenomena of infection and auto-toxaemia are manifest in pyonephritis, through the retention of purulent material lodged in massive, hollowed out caverns of the parenchyma.

Nephrotomy with curettage, drainage and disinfection will relieve or cure many of these cases. Nephrotomy is a more complete operation,

but vastly more dangerous; besides it is always well before it is undertaken to be assured that the opposite kidney is healthy.—*Jour. Des Praticiens*, 16, Jan., '97. (Note: By translator.)

Of late, since the writer has given special attention to the study of pathological lesions of the kidney, he has been amazed to find the comparative frequency of suppurative kidney, abscess of the kidney; in many cases supposed by the attending physician to have been lumbago, malignant disease of the liver, or appendicitis when the right kidney was involved and of the stomach when the left was attacked.

In persistent or aggravated cystitis, when gonorrhea or traumatism can be excluded, look carefully to the renal organs, when it will be found in many that affection of the bladder is only secondary to the renal lesion, by pus being discharged through the water from above.

A chemical test of the urine counts for almost nothing in these cases, as in the majority the abscess formation is local, the interstitial secreting elements being free. Besides, as the discharge of pus into the bladder is intermittent on the day the urine is examined its response to reagents may be negative, while at the same time one or both kidneys may be honeycombed with abscess cavities.

A morphological examination of the phagnoasic sediment and epithelial elements only—these being always present—will reveal the true character of the lesion. In many of these cases judicious surgery alone will save life or effect a cure.

T. H. M.





## Current Literature in Obstetrics and Gynecology.

### CURETTAGE FOR HEMORRHAGIC METRITIS IN THE VIRGIN.

Blanc points out (*Loire Med.*, No. 12, December 15, 1896) that until recently purely medicinal and often inefficacious means have been used in the treatment of virginal metritis. He reports three cases in which curettage was employed for this affection with complete success, and a fourth, in which permission for operation was refused by the patient's parents, and death followed. In the first two cases, aged 16 and 15 years respectively, the curette brought away large masses of whitish fungosities, of a firmer consistence than is usually met with in the scrapings of hemorrhagic metritis in married women; the uterus was afterwards packed with iodoform gauze. In the third patient, a girl of 14 years, the hemorrhage began at the third menstrual epoch, and was continuous; in this instance the curette removed grayish-white fungosities, of a softer consistence than in the foregoing cases.

### OVARIAN ABSCESS AFTER DELIVERY.

Brose (*Berl. klin. Woch.*, No. 52, 1896) relates that a woman after confinement had high temperature, which subsided, but the severe pain which accompanied it continued till, at the end of three months, when he operated. The right ovary was converted into an abscess larger than a walnut, the left contained a smaller amount of pus. The left

tube was also suppurating. The temperature had been normal just before the operation. Recovery was rapid.

### KRAUROSIS VULVAE.

Czempin (*Berl. klin. Woch.*, No. 52, 1896) recently exhibited at a society diseased structures excised from two cases of typical kraurosis where there was the usual intolerable itching, with corresponding stenosis of the vulva. The first patient was single, and aged 23. On careful search an incipient epitheliomatous growth, as big as a bean, was detected and excised with three-quarters of the vulva. The growth lay on the left of the clitoris. The second patient was aged 31. The kraurotic tissues, Czempin states, were excised. In both cases the wounds caused by the excision were united by a continuous catgut suture, and healed by first intention. It is not reported whether, as the above cases would imply, Czempin applies the term "kraurosis" both as the purely symptomatic itching, as in the first instance where there was cancer, and to a primary condition where itching is the earliest and most essential feature.

### GYNECOLOGICAL TREATMENT OF RHEUMATISM AND GOUT.

L. M. Bossi (*Arch. di Ostet. e Ginec.*, No. 10, October, 1896) records three cases illustrating the influence which the female genital organs have over the interchange of ma-

terials in the organism. The most noteworthy of these was a patient aged 46, who had suffered since the age of 31 from painful menorrhagia with intestinal and urinary disturbances. Nine years ago she had an attack of articular rheumatism, and now at each menstrual period she had gouty manifestations in the joints with scanty high-colored urine, dyspepsia, etc. She was very anemic, and all the small joints were swollen and deformed. The uterus was enlarged and prolapsed, and a scraping from the interior suggested sarcoma. The uterus and ovaries were removed by hysterectomy, and immediately the joint condition began to improve, and the quantity of urine and of urea during the succeeding month was more than quadrupled. The patient also gained nearly a stone in weight, and traces of tophi were no longer to be found in the joints. In another case vaginal hysterectomy for fibroma of the fundus uteri led to a notable increase in the amount of urine and in its urea, and to the disappearance of the articular pains. In yet a third patient rheumatic symptoms disappeared after the curettage of the uterus for endometritis hyperplastica. These observations the author advances simply as a preliminary note, but thinks that taken along with the recent researches of Curatulo and Tarulli and the results of castration for osteomalacia they demonstrate the influence exercised by the genital organs over the body metabolism.

#### PUERPERAL ECLAMPSIA; ITS ETIOLOGY AND TREATMENT.

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He said, *inter alia*, that we seem to have arrived at the renaissance of eclamptic literature; that while the subject is being discussed in magazine articles and societies it would not answer for this society to keep silent.

Though the pathogenesis of

eclampsia is still unsettled we are certain that it is a condition *sui generis*, pertaining only to the puerperal state, and that to describe, as formerly, three varieties—hysterical, epileptic and apoplectic—is erroneous as to pathology and causation, as well as misleading in treatment.

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Treatment should be classified into (a) preventive, and (b) curative. The preventive treatment should be subdivided into medicinal and hygienic; and the curative into medicinal and obstetric. A qualitative and quantitative analysis of the urine must be made at the onset. If there is a defective elimination something must be done speedily to correct a faulty relationship between nutrition and excretion. One of the surest ways to control progressive toxemia is to place the woman upon an exclusive milk diet. This will also serve to flush the kidneys and thus favor elimination. Distilled water is one of the best diuretics; it increases activity and supplies material—two important elements. In the pre-eclamptic state, when there is a full pulse with tendency to cyanosis, one good, full bleeding may be permissible, but its repetition should be regarded with suspicion. If there is high arterial tension—vaso-motor spasm—glonoin in full doses is valuable.

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## Therapeutical Progress.

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### THE NEW LOCAL ANESTHETIC.

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been used as a local anesthetic, we have thought it desirable to review briefly some points of practical interest in regard to the new agent.

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**Minor Surgery.**—In his first article, already referred to, Dr. G. W. Spencer reported a series of twenty operations for ingrowing toenails, abscesses, ulcers, small tumors, in which eucaine produced rapid, complete and prolonged anesthesia without systemic effects. In a later report (Med. and Surg. Rep., Nov. 28, '96) of 24 cases occurring in his own practice and that of Professors Keen and Brinton and Drs. Hearn, DaCosta and Horwitz, eucaine anesthesia was utilized in a large number of instances in which systemic anesthesia is usually required, comprising amputation of the little finger at the metacarpophalangeal joint for gangrene; ingrowing nail on the big toe accompanied by eczema of the adjacent tissues; extirpation of dermoid cyst in the sacral region and chondroma of the hand; excision of suppurating bubo; excision of epithelioma of the forehead and of a thyroid cyst; fistula in ano, empyema, and removal of a large nevus from the upper lip. In three cases of major operations, viz.: For syphilitic stenosis and sarcomata of the larynx, in which tracheotomy was performed, eucaine proved preferable to a systemic anesthetic, as, unlike the latter, it does not produce accumulation of mucus in the lungs and stomach, the efforts at expulsion of which keep the trachea in constant motion and interfere with the operation. No pulmonary symptoms followed the use of eucaine in any of these cases, and two drachms of a 5 per cent solution had no effect upon the heart or circulation. The average duration of anesthesia was about 20 minutes. Two drachms of a 5 per cent. solution, used hypodermically, were sufficient usually to induce anesthesia. The hardening action on



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**Ophthalmology.**—Vinci and Berger, who were the first to employ eucaine in diseases of the eye and various operative procedures upon that organ, both consider it an anesthetic of great value and regard the absence of mydriasis and corneal dryness as of very great clinical importance. R. B. Carter (Lancet, July 11, '96) also considers the fact that eucaine does not affect the pupil as an advantage of practical value in various operations upon the eye, as illustrated in a case of cataract ex-

traction in his practice. Professor H. Cohn, of Breslau, for the same reason prefers it to cocaine in glaucoma and strabismus operations. Dr. J. C. Clemesha (Buffalo Med. and Surg. Jour.) has employed it with success in cases of removal of foreign bodies in the cornea, and states that Dr. Howe has obtained equally successful results from its use in extractions and iredections.

**Minor Surgery.**—In his first article, already referred to, Dr. G. W. Spencer reported a series of twenty operations for ingrowing toenails, abscesses, ulcers, small tumors, in which eucaine produced rapid, complete and prolonged anesthesia without systemic effects. In a later report (Med. and Surg. Rep., Nov. 28, '96) of 24 cases occurring in his own practice and that of Professors Keen and Brinton and Drs. Hearn, DaCosta and Horwitz, eucaine anesthesia was utilized in a large number of instances in which systemic anesthesia is usually required, comprising amputation of the little finger at the metacarpophalangeal joint for gangrene; ingrowing nail on the big toe accompanied by eczema of the adjacent tissues; extirpation of dermoid cyst in the sacral region and chondroma of the hand; excision of suppurating bubo; excision of epithelioma of the forehead and of a thyroid cyst; fistula in ano, empyema, and removal of a large nevus from the upper lip. In three cases of major operations, viz.: For syphilitic stenosis and sarcomata of the larynx, in which tracheotomy was performed, eucaine proved preferable to a systemic anesthetic, as, unlike the latter, it does not produce accumulation of mucus in the lungs and stomach, the efforts at expulsion of which keep the trachea in constant motion and interfere with the operation. No pulmonary symptoms followed the use of eucaine in any of these cases, and two drachms of a 5 per cent solution had no effect upon the heart or circulation. The average duration of anesthesia was about 20 minutes. Two drachms of a 5 per cent. solution, used hypodermically, were sufficient usually to induce anesthesia. The hardening action on



tissues, to which attention was called by Dr. Fuller (see this journal, September, '96), was not observed by Dr. Spencer. Dr. C. L. Schleich, of Berlin, states that for the production of pure contact anesthesia, as by painting the solution over the mucose, eucaïne should replace cocaine, and also comments upon its freedom from toxic effects. Dr. Wehmer was able to secure perfect anesthesia from its use in a number of complicated gynecological procedures.

#### DISEASES OF THE NOSE AND THROAT.

In the treatment of nasal and throat affections, especially those requiring operative procedures, the use of cocaine is so general, notwithstanding the frequent occurrence of poisonous effects, that any new aspirant for popular favor must possess positive merit. From what has been said above, eucaïne seems destined to replace cocaine in this class of cases, if for no other reason than that, while equally efficient, it is perfectly safe. Dr. Hal Foster (Langsd. Lancet, August, '96) has successfully employed it in tonsillotomies and galvano-cautery procedures in the nose, and equally favorable results are recorded by Drs. Kemperdick and Reichert.

#### GENITO-URINARY DISEASES.

To secure anesthesia of the urethra and bladder eucaïne is eminently suitable, for although the burning feeling produced may occasionally serve as a drawback, this is more than compensated for by its superior safety. Drs. Gori and Lillienthal both write favorably of its use.

#### DENTAL SURGERY.

For reasons already given eucaïne is a most important acquisition to the resources of the dental surgeon, and there is every reason to believe that it will enable him to secure the most complete local anesthesia with a minimum of risk.

#### DIRECTIONS FOR THE USE OF GLUTOL-SCHLEICH.

Wounds may be divided into four classes, in each of which glutol must be employed in a special manner:

1. Fresh traumatisms and operative wounds in which the glutol treatment is begun within the first few hours after the solution of continuity.

2. Wounds which have been exposed to the possibility of infection for more than four hours.

3. Inflamed and suppurating wounds.

4. Larger losses of substance and ulcerations.

1. In recent wounds the glutol must be brought into intimate contact with the whole of the raw surface. In incised wounds the opposing surfaces must be well powdered with the material, and an extra quantity gently pressed in between their margins. In irregular and lacerated wounds it must be carefully rubbed into all the cavities and corners of the lesion. Portions of tissue that are manifestly incapable of recuperation must be removed; yet oftentimes endangered fragments, such as portions of skin and bone, recover their vitality under the glutol treatment. All wounds containing necrosed material, however, must be carefully watched. The scab that is formed may be allowed to remain in situ until healing occurs.

2. In older injuries the primary glutol dressing must be renewed after 24 hours in every case.

3. Inflammatory and suppurating wounds must be treated according to general surgical principles before the glutol is applied, so that sufficiently healthy tissue may come in contact with the glutol. Incision, drainage, cleansing of the wound, removal of the dead tissue, fragments, etc., must be employed as indicated. If a scab forms, it must be removed in some places, at all events, during the first 48 hours, to enable fresh glutol to come in contact with the denuded surfaces.

4. With ulcerated areas the preliminary removal of all dead or non-visible material is of the greatest importance, and here also the scabs must be removed from time to time.



Burns in any stage can be quickly healed with glutol.

Where the suppuration is free it is well to remove the hardened or more or less fluidified glutol from time to time, and apply fresh material.

The great advantage of glutol lies in the absolute certainty of ante-disinfection of the wound by the tissue cells themselves. This auto-disinfection occurs in infected wounds also, as soon as neighboring and healthy cell material comes in contact with the glutol in sufficient quantity. The greatest care must therefore be taken to open up all infected cavities. Tortuous wounds and suppurating sinuses may be treated with glutol tampon.

The layer of glutol must always be covered with aseptic gauze, except in the case of small wounds, where scab formation occurs in a very few hours.

Berlin, December, 1896.

DR. C. L. SCHLEICH.

The grated form will hereafter be supplied exclusively as Dr. Schleich has found it to give better results than the fine powder.

#### GASTRO-INTESTINAL CATARRH IN INFANTS.

Dr. Wells (Philadelphia Polyclinic) has found the following prescription of great use in quieting the restlessness so often seen in infants affected with subacute or chronic gastro-intestinal catarrh:

R. Sulphonal .....  $\frac{1}{2}$  gr.  
Sodium Bromid ..... 2 gr.  
Spirit of Peppermint ..... 10 drops.  
Camphor Water ..... 1 fdr.

Mix. The dose should be repeated every two or three hours, according to indications. Occasionally, when the attack of restlessness is preceded by sour vomiting and pain 5 or 10

grains of sodium bicarbonate added to the above prescription will increase its usefulness.

—London Practitioner.

#### VEHICLE FOR CASTOR OIL.

A new method of disguising the disagreeable taste of castor oil is recommended by Klein (Pharm. Central, 1896, xxxvii). Fifteen to 20 grammes (say 1-2 fl. oz.) of the oil are mixed with a glassful of milk and heated under constant stirring. In a few minutes a perfect emulsion is had, to which is then added a little syrup of orange flowers, resulting in an active preparation of an agreeable taste. Another method consists in shaking castor oil with brown beer in a bottle, or mixing the two in a jar with a rotatory motion. This is said to yield a mixture that is very agreeable to take.


#### AN ANTIPRURIGINOUS LOTION.

The following lotion is recommended by C. Boeck as useful in dry, itching, inflammatory diseases of the skin:

R. Talc  
Powdered Starch ..... aa oz. iss.  
Glycerine ..... dr. vj.  
Lead-water ..... oz. iiii.

This is to be diluted with twice the volume of water, shaken and applied to the skin with a brush or mop, and permitted to dry on. The effect of the lotion, which of course contains talc in suspension, is cooling, antipruriginous, astringent and antiseptic. Half of the lead-water may be replaced by a 1 per cent. boric acid solution, especially where the skin is tender. The lotion is useful in acute and chronic dry eczema, papular eczema and in acute psoriasis, but is contraindicated in diseases in which there is fluid discharge.

—London Practitioner.



## Miscellany.

### AN APPALLING SITUATION.

Without a self-regulating check on dispensary use it is bound to increase. No test by garment texture can separate the very poor from those able to pay. The well-to-do often come in rags, and the self-respecting poor, struggling to keep a situation, come fairly well dressed. As things are going it is only a matter of time till most persons not possessing wealth will be drawn into the vortex. Even now the evil is so great that the majority of young medical men have no possible way of getting into practice but through dispensary work. The patients that under normal conditions would be willing to engage them now get treatment free, and when they do pay for a call the dispensary doctor gets it. The sole alternatives left them are starvation, suicide, quackery, some other business or covert advertising. What wonder that a large multitude of graduates disappear from professional life within a few years of graduation? What wonder that there are vastly more suicides among medical men than in any other profession? As there are scores of applicants for every dispensary vacancy, what wonder that there are unseemly scrambles for

such places? What wonder that the situation debases many of them into sycophants and wire-pullers? Such a struggle leads to degeneracy by favoring the survival of the mean. Such as gain the places often seek to live above the temptations of their environment by trying to do their whole duty to those they treat, but it is impossible. But a very small number are there primarily as missionaries of science. The majority are there to build up a practice. They see and know that they are being cheated out of their rights in having to do so in this manner, but they only dare to protest in a half-hearted way. Looking around them they discover that janitors, butchers, bakers, grocers, nurses, managers, clerks, pharmacists, porters, messengers—all are paid for their services. None of them do obeisance to the lying fetish misnamed Charity. Doctors must work as wreckers of their own profession, and be satisfied with the fragments of the wreck. If it was true charity no one would complain. If only the needy came, and under conditions that did not debase them, how glorious a mark of our civilization all this would be?

—American Medico-Surgical Bulletin,  
Jan. 25, 1897.



